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ORIGINAL COMMUNICATIONS.

PARACENTESIS THORACIS.

A Lecture before the Oxford, Pa., Medical Society,

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(Continued from page 740.)

THE *quantity* of fluid drawn from a chest in paracentesis is often enormous. Eighty ounces are not uncommon, and fifty to sixty are moderate amounts. At one time it was thought that only a part of the fluid should be drawn off at one sitting, lest syncope should supervene. This is now well known to be unfounded, and such partial evacuation is no longer thought necessary. But I myself prefer not to empty the chest completely, because I think I have observed that the violent pain, already alluded to as occurring after the tapping, is less likely to happen when some fluid is left behind, while its speedy disappearance by absorption is almost certain to take place if the inflammation has subsided, in consequence of diminished pressure upon the blood-vessels.

It sometimes happens that towards the close of the operation bloody serum and finally pure blood flow from the canula. This need not give any alarm, but the canula should be withdrawn and the operation discontinued, as the hemorrhage, which probably takes place from ruptured vessels in the false membrane, is best checked by the prompt coagulation and consequent pressure which thus result.

In terminating the operation, the canula is withdrawn and a piece of adhesive plaster of considerable size closely applied over the aperture and adjacent integuments. The edges of this may be overlapped by other pieces if desired. No other precautions are necessary, and under ordinary circumstances the opening is completely closed within twenty-four hours.

Not infrequently a fluid will reaccumulate, even if it be a simple serosity. This is more particularly the case when, as intimated, the inflammatory action has not subsided up to the time of tapping. Under these circumstances, it may be repeated as often as is necessary to secure the comfort of the patient and his final total relief. But if the fluid be a *purulent* one, it will almost invariably accumulate, and the difficult problem of getting permanently rid of an empyema is by no means successfully solved to-day. If it be known in advance to be an empyema, no precautions need be taken to keep the air from reaching the cavity; but, as this is scarcely ever certain the first time the tapping is done, one of the special apparatuses for aspiration may be used for this reason, and for the sake of the other advantages named with regard to them.

But suppose you have found an *empyema*, what will you do with it? After completely evacuating the chest, I have always after the first tapping closed the opening as usual, although there is perhaps little good reason for this, so sure is the pus to reaccumulate. Still, besides the fact that there is some chance for a non-reaccumulation, it is sometimes well not to do too much at one time. The patient has been relieved, but the operation has been to him an alarming one, and I can conceive ordinarily no disadvantage in waiting for a reaccumulation. This having occurred, however, a sufficient opening must be made with a bistoury, and a drainage-tube introduced, such as I show you, with an incurvation downward, so as not to injure the lung. A stopper may be supplied by the instrument-maker, or one may be improvised. This being done, the accumulating fluid can be evacuated daily or as desired.

But you will not be likely in this way to get rid of it entirely, although in the patient I show you to-day I do not ascribe the gradual diminution of the flow to any other local treatment. Of course, I need not say to you that such cases require constitutional treatment of the most supporting and antipyretic kind. Nourishing food, alcohol, quinine, iron, and digitalis are pre-eminently indicated. But some local treatment is usual, the object of which is to excite cohesive inflammation between the costal and pneumal pleuræ. Hence it is of an irritating character, and the preparations of iodine are those usually employed. The strength cannot be unvarying, but will depend upon the irritability of the membrane. Trousseau, whose experience was so extended, recommended 50 grammes (771½ grains) of tincture of iodine (the French tincture is a little stronger than the American), 2 grammes (30.86 grains) of iodide of potassium, and 100 grammes (154.3 grains) of water, making a total of 152 grammes, or 4.88 ounces by weight. To this he added an equal quantity of tepid water, and injected the mixture into the chest-cavity, in which some fluid had been allowed to remain. After allowing this mixed fluid to come into contact with the chest-wall, a portion was drawn off, in order to obviate any toxic effects of the iodine, and the drainage-tube closed. On the next day the tube was opened, a portion of the fluid allowed to run out, and the injection repeated in the same manner. This was done for several days in succession, the quantity and strength varied according to circumstances,—pain, fetor, tendency to contraction, etc. Then the interval was made longer, once in two, three, or four days, taking care to empty the chest at least once in twenty-four hours. The treatment thus instituted is continued four, five, six months, and even longer. My own plan has been to use the tincture of iodine and Lugol's solution daily and at longer intervals, according to the degree of irritation; although I have never allowed the solution of iodine to remain longer than a few minutes to half an hour. My experience has not been very extensive, but it is impossible for me to say that the favorable results obtained are to be attributed to the iodine injections. Carbolic acid has been used for the same purpose, especially where there is extreme fetor.

This treatment of course involves the necessity of extreme deformity of the chest, due to external

atmospheric pressure. The lung being compressed into one corner of the thoracic cavity, and bound down there by adhesions, cannot at once return to its original position, while the evacuation of the fluid makes a vacuum, which, being only partially filled, allows the chest-walls to be pushed in by the external atmospheric pressure. This takes place the more rapidly and painlessly the younger and more pliant the chest-walls are, the more slowly and more painfully the older and more rigid those walls. It soon, however, becomes very marked under either circumstance. So too, in the course of time, if the case does well, this deformity gradually diminishes as the lung recovers its original volume, but months and even years are required for its completion, which perhaps occurs only in children.

In the case to be exhibited, some slight discharge continues daily through the fistulous opening which remains, and which we have been unable to cause to disappear entirely by the iodine injections; though it must be admitted that they have not been so perseveringly continued as is suggested by Trousseau, on account of the pain and discomfort which were occasioned by their use.

It remains to refer to the effect of removal of fluid from the chest upon the physical signs of auscultation and percussion. If the case be an acute one, or the effusion comparatively recent, if the evacuation be complete, dull percussion is replaced by resonance, and the respiratory sounds are again heard, including the vesicular murmur. But if the case happen to have been of some duration, and especially if the lung is much bound down and the pleuræ greatly thickened, it will often happen that the dulness is scarcely if at all diminished, and the vesicular murmur as faintly heard immediately after tapping. If the accumulation is kept down, however, the normal condition of affairs is gradually reproduced.

In conclusion, I desire to exhibit a couple of cases illustrating the two conditions under which the operation is most likely to be indicated.

Latent pleurisy with effusion—Paracentesis—Recovery.

I first saw J. H., aged 22, on the 5th of May, 1874, in a condition which proved to be the beginning of a typhoid fever. The disease passed through the various stages of a well-marked but not very severe form, and convalescence seemed decidedly established on May 20, so that I omitted a visit on the following day, which was Sunday. I saw him on Monday morning, when I was not impressed with anything unusual in his condition. While at dinner, however, on this day, I was summoned to see him on account of a feeling of extreme faintness and difficulty in breathing which had come over him. I auscultated his heart, found it beating rapidly, but exhibiting no sounds of valvular lesion. Not thinking of examining his chest further, I ascribed the condition to some temporary cause. On the next day, however, the symptoms continuing, I explored his chest, and found dulness from top to bottom of the left side, feeble and in places absent respiratory sounds, and diagnosed the presence of fluid. How long the effusion had been present it is impossible to say; but, from the sudden change in his symptoms, I am confident it was of rapid production, and did not exist in large amount prior to May 30.

Previous to his illness he had a slight hydrocele, which increased rapidly, and became very troublesome by its size, during his illness. Diuretics were given for a few days without effect, when I urged tapping as the shortest route to recovery. I punctured the chest between the ninth and tenth ribs, on the line of the lower angle of the left scapula, and drew off between sixty and seventy ounces of limpid fluid, using the aspiration apparatus recommended to you and the exploring trocar only, as the fluid passed out so rapidly that I did not think it necessary to substitute it by a larger one.

From that time convalescence was rapid. The normal physical sounds rapidly returned, and in two weeks he was up and about. I am confident that as many months would have elapsed before he would have been as well under any other treatment, if, indeed, he would not have succumbed altogether; for his condition after the long attack of fever was one of extreme debility, which did not diminish until after the tapping. The lung entirely reoccupied its original situation, and there was never any subsequent deformity of his chest. To-day he is before you, exhibiting in the shape or physical signs of the chest no evidence of his extreme illness, in all respects a sound man.

The next case is one of unusual interest, being one of practical recovery from *empyema*, which I have watched for nearly three years, and which but for the procedure adopted would have been necessarily fatal. It illustrates, also, the effect, or want of effect, of a faithful trial of other treatment continued over a long period, and exhibits the gradual return of a much displaced heart and compressed lung to their normal relations.

Pleurisy with effusion—Empyema—Paracentesis—Recovery.

C. B., æt. 21, a native of Ireland, single, a shoemaker, moderate drinker. His parents are healthy, and his previous health was good. In December, 1871, he was attacked with a severe pain in the left breast, over the region of the heart, lasting about twelve hours. This was relieved by a mustard-plaster, but he was not able to go about for a week, and did not enjoy good health during the following year; complaining, however, of no pain, but merely of weakness.

On January 5, 1873, he contracted a bad cold, with pain in the left side, some cough and fever, for which he was admitted to the Philadelphia Hospital on January 7, 1873, having at the time of admission a pulse of 120, temperature 104°, and respirations 30.

January 22.—Inspection revealed evident filling up of intercostal spaces on the left side, below the nipple anteriorly, and laterally from axilla down. Percussion was dull throughout, back and front. Auscultation revealed marked tubal breathing immediately below the left clavicle, and the vesicular murmur was audible anteriorly only as far as the left nipple; below this it could not be heard, nor in the axilla. Over the upper part of the left lung, posteriorly, it was heard, but became indistinct as the base of the chest was approached, and finally disappeared. No vocal fremitus was appreciable anywhere over the left lung, except at its apex. The heart's impulse was seen to the right of the sternum, discernible from lower edge of second rib to upper edge of fifth, and extending to the right as far as the nipple line. There was also marked movement of the abdominal wall below the xyphoid cartilage, and in this situation also the first sound was heard most distinctly, and a very little higher up the second sound, which was loudest at the right edge of the sternum, and over the sternum itself, opposite the second interspace.

Treatment.—He was ordered the iodide of potassium (ten grains ter die), while the chest was to be kept painted with tincture of iodine.

February 7.—Says he is stronger, but complains more of dyspnœa, though we are unable to say, by inspection, that there is greater protrusion of the chest-walls. Physical signs remain as above noted. Has been taking the iodide faithfully, and has had the iodine applied externally more or less constantly.

March 10.—Removed twenty-seven and a half ounces of a sero-purulent fluid by a puncture by trocar and canula, between ninth and tenth ribs, in a line with angle of scapula. On microscopic examination the fluid was found to contain pus-cells in different stages of granular degeneration; also numerous compound granule-cells. The patient expressed himself greatly relieved after the operation, and said he felt as if he could lie down and sleep all day.

April 2.—Twenty-five and a half ounces of sero-purulent fluid were drained off with trocar and canula.

April 4.—Forty-eight hours after the tapping above mentioned, physical exploration revealed impulse of heart in same situation as previously noted; so also the heart-sounds. The respiratory sounds are audible as far as left nipple anteriorly, but not in the axilla; posteriorly, tubal in character, they are heard in supra-spinous fossa, and nearly normally in infra-spinous fossa; below the scapula they are feebly heard. Respiratory sounds continue supplemental on right side. Inspection shows less prominence in mammary region, though in other respects the conformation of side is not altered. Patient says he feels better than he has felt for nine months.

April 14.—General condition continues good, though he complains of being weak. Vesicular breathing is heard anteriorly only as far as nipple, and is not heard in axilla. It is heard distinctly in supra-spinous fossa, posteriorly, faintly over scapula below its spine, and very faintly, if at all, below angle of scapula. Ordered Basham's mixture, tablespoonful t. d., and iodide of potassium to be continued.

May 2.—He feels better and stronger than he did two weeks ago. Inspection reveals no change in appearance of chest. There is flat percussion throughout entire left thorax. Auscultation unchanged. Treatment continued as last noted.

May 17.—Complains of increased difficulty of breathing, for which ordered blister.

May 21.—Drew from his chest, before the class, forty-two ounces of sero-purulent fluid. Forty-eight hours later there was evident reduction in bulging of chest. At this time, also, dulness seemed slightly diminished; respiratory murmur was heard as far down as heart's dulness anteriorly, and throughout whole left chest posteriorly, but not in axilla.

June 2.—He is feverish, feeble, skin warm, pulse 99, respiratory murmur is no longer heard below left clavicle, being entirely replaced by bronchial breathing, and there is dulness throughout the chest.

June 8.—Drew from chest fifty ounces of sero-purulent fluid, which was much more consistent. This tapping gave him great relief.

June 11.—Chest again tapped, this time in the seventh interspace, and drainage-tube introduced, through which pus ran freely to the amount of fourteen ounces. During remainder of day it ran sixteen ounces; on the 13th, twenty-four ounces; on the 14th, forty-two ounces (last two ounces being of a pink color); on the 15th, five ounces, some pink color present; on the 16th, one ounce, pink disappeared. Has been losing strength and flesh during past ten days; but his pulse now is less rapid and skin cooler than immediately before drainage-tube was introduced. Pulse now is 99. On last date, the physical signs noted were as follows. There is such hyper-resonance throughout the chest as of itself to suggest pneumothorax; there is an audible entrance and exit of air through the tube with both respiratory acts. Auscultation reveals metallic respiration over the whole chest anteriorly, in the axilla, and below the scapula posteriorly.

June 18.—General condition much better. Pulse 100, skin cool, temperature 98°. Physical condition can scarcely be said to be altered, although there is not so much pneumothorax.

June 30.—He is vastly better. The quantity of pus discharged has gradually diminished until yesterday, when only half an ounce of thin, turbid serum was discharged, and this morning nothing flowed from the canula. His temperature this morning is $98\frac{3}{5}°$, and pulse 96. There is a slight evening exacerbation of both, temperature being 99°, and pulse 110. Has been allowed a farm-pass to-day.

July 2.—Discharge so much reduced that the canula was removed, and the opening closed with adhesive strips.

July 5.—Chest-walls are evidently bulging. Reopened the orifice, and five ounces of the thin, turbid fluid were discharged. This fluid, which is like that discharged during the last few days previous to the removal of the canula, has not the appearance of pus, being darker in hue and thinner.

July 14.—Discharge again purulent, but he continues doing well; has recently been ordered a pill of quinine, gr. j; digitalis, gr. ½; carbonate of iron, gr. ij.

July 23.—Does not appear quite so well; has a temperature of 100°, and a pulse of 120; last night pulse 106, and temperature 99°. Is disposed to be sleepy. The quantity of pus discharged is small, being but one ounce yesterday.

July 29.—Has revived from the drooping condition, and chest is discharging two ounces a day. Inspection reveals marked depression of the left chest anteriorly, below the clavicle; this is not noticeable laterally or posteriorly. An impulse is seen and felt in the second and third interspaces for two inches on each side of the sternum. It is most marked to the touch and to the eye in the third interspace, to the *right* of the sternum. On percussion the left chest is found resonant throughout anteriorly and in the axilla, while at the same time there is an absence of that hyper-resonance previously noticed on June 16. Posteriorly, however, throughout, the resonance is less marked than anteriorly and in the axilla. Auscultation reveals a total absence of metallic respiration, while in the upper part of the left chest, anteriorly and posteriorly, the air can be heard going into the finer bronchial tubules, attended, anteriorly, with some crepitation. Below the nipple anteriorly, and in the lower part of the axilla, a friction-sound is heard. Below the left scapula, broncho-vesicular breathing is heard. The first sound of heart is heard most distinctly at the lower third of the sternum, and the second sound is most distinctly heard at the second costal cartilage of the right side. At this situation a systolic murmur is also heard.

August 22.—Chest is resonant throughout, posteriorly as well as anteriorly, and air is undoubtedly heard entering the lungs throughout. The depression anteriorly continues, and is noticeable to the right of the sternum. Is discharging one-half ounce to one ounce of pus daily from the canula. Has occasional attacks of palpitation, of which digitalis relieves him (gtt. x, t. d.). Pulse 90.

October 8.—Is still improving, and gaining flesh decidedly. There has been no retraction of chest-wall during the last month. Pus discharging about as last noted. The impulse of the heart is now felt most distinctly one and a half inches to the right of, and one-half inch below, the left nipple, though an impulse is

still discernible at the right edge of sternum, directly opposite. The first sound is heard most distinctly at the situation of the apex-beat, and is accompanied by a shrill creak with every systole; as the ear is moved upwards towards the right of the sternum in the second interspace, where the second sound is heard most distinctly, this shrill noise disappears and is replaced by a murmur.

He was discharged during October, 1873. A week after his discharge he entered St. Joseph's Hospital, where he received, during five weeks, tonic treatment, but no injections into the cavity. During this period, he says, he grew gradually weaker, and lost appetite and flesh. At the end of the fifth week injections of carbolic acid were used. From the beginning of this treatment he improved in every respect, and the amount of pus discharged decreased from five ounces, the amount it had reached, to one-half ounce daily. It will be remembered, however, that the discharge fell to this amount in the Philadelphia Hospital without injections. He remained in St. Joseph's Hospital for seven months, when he was discharged. For four succeeding weeks he was in St. Mary's Hospital, where he received no injection treatment.

On June 19, 1874, he was readmitted to the Philadelphia Hospital, with a daily discharge of two ounces of pus. He was put on Basham's mixture, and quinine.

July 10.—Was injected with one ounce of solution containing pot. iodid., gr. ij; and iodine, gr. j; in water.

July 12.—Two ounces of the same solution were thrown in. Since the injection the discharge of pus has increased to three ounces.

August 21.—Injected f℥ij of liq. iodin. comp. in four ounces of water.

October 20.—The above solution was used until it seemed to excite pain and produce a bloody discharge, without apparently diminishing the amount of fluid. It was then omitted altogether, and in the course of a few days the bloody discharge ceased, and then continued to discharge daily about two ounces of purulent matter, sometimes a little more, seldom less.

About October 10, recommended injecting him with a solution consisting of tr. iodinii f℥i, water f℥i. Of this fluid, about f℥vj were injected daily, kept in for ten minutes, and then withdrawn with an aspirator, the fluid coming out with but little change in its appearance. The injection, when introduced, produces a tingling sensation, and excites no bloody discharge. The accumulated fluid is evacuated once a day through a canula, and amounts to about one and a half ounces. He feels perfectly well, only having a little dyspnœa when walking up and down stairs. His left chest is much contracted, and the apex-beat is a little to the right, and below the nipple. He is taking no remedies except tonics and good nourishment. To-day the strength of the injecting fluid is ordered to be increased to f℥jss to the oz.

June 25, 1875.—Soon after the above note the injections were discontinued.

In appearance he is looking better than I have seen him since he has been in the house. He weighs about one hundred and twenty pounds. He is able to walk from the hospital to Third and Walnut Streets and return without fatigue, a distance of at least six miles. Observes no shortness of breath in walking on a level; but after ascending three flights of stairs, he observes some dyspnœa at the end of the third.

The opening made by paracentesis, apparently in the seventh interspace, and in a line with the anterior fold of the axilla, remains patulous, notwithstanding the removal of the tube last autumn. From this there is now discharged every evening, when the patient clears the canal with a probe, about one-half ounce of nearly transparent, bloodless, aqueous fluid, free from odor. This quantity, since the warm weather has set in, is nearly double that discharged when it was cooler. This fluid has an acid reaction, specific gravity 1015, and on microscopic examination reveals numerous pus-corpuscles, with here and there a red blood-corpuscle.

The left chest is extremely retracted, and the ribs evidently drawn down so far as to include the first four ribs, the fifth rib of the two sides corresponding. The inferior third of the thoracic cage on the left side anteriorly is a little more bulging and extends a little lower than the corresponding part of the opposite side. Two impulses are distinctly observed on inspecting the chest, the more prominent at the left edge of the sternum, just below the third rib, this rib appearing to be drawn down, so as to correspond in situation with the fourth rib of the opposite side. On this rib is also placed the nipple, so that this point of more distinct impulse may be said to be an inch below and within the left nipple,—the normal situation. The second more feeble impulse is observed and felt about an inch and a half directly above the first, at the left edge of the sternum and at the second interspace; the second rib being also apparently drawn down as the third.

The first sound of the heart is heard most distinctly in the situation of the apex-beat and in its immediate vicinity, and is apparently normal. The second sound is heard most distinctly at the right edge of the sternum at the second interspace, or its immediate vicinity. The vesicular murmur is heard distinctly over the entire left lung anteriorly and posteriorly. Anteriorly, and in the axilla, resonance is perfect, but posteriorly it is still somewhat impaired, doubtless owing to thickened pleural membrane.

SHALL WE DISPENSE OUR MEDICINES?

BY THEODORE H. SEYFERT, M.D.

THE question as to whether we shall dispense our own medicines or not may appear to be of trivial importance, but in reality it is one demanding our consideration, since it directly affects the interests of the majority of our profession to a greater extent than many are aware of.

Whilst fully appreciating the objections that some gentlemen will urge against any proposition favoring a return to this custom, which is almost obsolete among regular practitioners in large communities, I would, nevertheless, like to direct attention to a few of the advantages connected therewith, hoping in this way to call forth an expression of opinion from those who are inclined to adopt the practice with certain restrictions. Putting aside all feeling of pride and of prejudice, let us ask what benefits are to be derived from assuming this duty which has been delegated to the apothecary.

In the first place, it will bring about a more desirable simplicity in the administration of medicines, thereby enabling us to acquire a more thorough knowledge of their therapeutic power.

An increased simplicity in prescribing has always marked the onward strides of our science. Apothecaries owe their existence to the fact that the busy practitioner of ancient times, who seemed to gauge the efficacy of his formulæ by the greatness of the number and the heterogeneous character of their ingredients, could not bestow sufficient attention upon his patients when he occupied himself with the laborious duty of compounding his own prescrip-

tions. Hence he employed others to perform this mechanical work. It may easily be imagined how little was understood of the therapeutic value of any one substance, when in its administration it was associated with many others of unlike character, and all mixed up together according to the whim of a prescriber who was influenced by the vagaries of his fancy or by erroneous science.

At the present day, however, polypharmacy is no longer the fashion, for it is in direct opposition to the acquisition of therapeutic knowledge, and co-temporaneous with our progress is the tendency to a still greater simplicity in prescribing.

From many valuable drugs the skilful chemist has separated their active principles, and with these instruments of power we are every day becoming better acquainted as we wage our warfare against disease and death.

We are desirous of obtaining accurate information regarding the real value and the modus operandi of our medicines: therefore we make no elaborate formulæ, but exhibit them uncombined whenever we can consistently do so, in order that we may study their actions upon the system. It is not the multiplicity nor variety of tools which marks the skilful workman, but rather his thorough acquaintance with the few he has judiciously selected for the work before him.

Another important point for consideration is the effect produced upon the mind by dispensing medicines with our own hands. To possess the full confidence of a patient and his faith in our ability to cure, is to hold a therapeutic power of great importance. That this power is greatly lessened by the present system of dispensing is quite apparent, since by affording patients an opportunity to become familiar with our remedies they unconsciously breed a contempt for them, and, giving rein to that love of mysticism which is inherent in human nature, they ultimately put faith in the wonderful little pellets of Hahnemann, or in any other practice which does not appeal to their understanding, but promises the attraction of novelty.

The influence of the mental operations over the functions of the body is indeed powerful. It is often found not only to be the cause of various disorders, but it is also an instrument the physician can frequently use in promoting a cure. Patients will frequently exclaim against the use of certain remedies simply because they entertain erroneous notions concerning their effects, or are skeptical in regard to their remedial virtues. With such people a medicine with which they are wholly unacquainted, dispensed by the hand of the doctor, is far more efficacious than any prepared by the most skilful pharmacist according to written instruction.

And why is this the case? Simply because we appeal to the imagination. We have frequently witnessed the wonderful results attained through this influence, and no one will question our right or our ability to make use of this power in all cases where the welfare of our patient will be advanced thereby, without compromising the interests of morality. It is true that empiricism has owed its success to the advantage it has taken of this faculty of the mind, and that our homœopathic neighbor appeals to it alone through the instrumentality of his saccharine pellets, his look of wisdom, and his minute questions about all manner of irrelevant things; yet these facts do not militate against the regular physician, who, with a proper regard for his own reputation and the credit of his profession, does not hesitate to make use of a lever so efficient in elevating the sick body to its standard of health.

A little mysticism is not altogether objectionable even to intelligent minds, and it cannot be denied that the Hahnemannic globule, in conjunction with a few hygienic regulations, has "acted like a charm" in dissipating troubles which a more active medication might have increased. The minuteness of a dose will often create the idea that it is one of great power, and this belief certainly aids the remedy in its operation; particularly so if the attention has been directed to the changes it is intended to produce.

In almost all cases of disease I think that the patient will progress most favorably when he possesses no knowledge of the medicine he is taking, but is thoroughly impressed with the idea that it will bring about certain results. In this way bread pills have induced salivation, an emetic has had the effect of a purgative, and a few drops of pure water have brought refreshing sleep to a suffering patient.

Medicines prepared by different chemists vary greatly in their strength, especially those known as fluid extracts and tinctures. Writers upon therapeutics seldom fail to warn their readers of this fact, and enjoin upon them the necessity for being upon their guard whenever using powerful medicines in either of these forms. It is a matter of great satisfaction to be assured of the strength and reliability of the remedies we employ, but this satisfaction can never be ours so long as we adhere to the custom of writing prescriptions which may be compounded at any one of the hundreds of drug-stores that flourish in our midst. By dispensing medicines purchased from chemists in whom we have confidence, we may always feel assured of the extent of their purity and strength.

Then the subject of *dosage* is one of importance. There has been a question in my mind when administering medicines in the form of pill or of powder as to whether I was securing any greater accuracy in the dose than when I ordered a mixture and depended upon the teaspoon or tablespoon method of measuring. If the substances we prescribe were always thoroughly disseminated through each other as well as through the vehicle which holds them, and if all apothecaries exercised the skill required to make a neat division of doses, then there would be no question about it. But we can never rely upon this being the case. As a rule, the fluid form is accepted as being the best and most convenient way of giving medicines; but spoons vary so much in size and shape that we can never be satisfied of their capacity until it is tested. In dispensing there is this advantage: by taking the spoon to be used, and with it measuring the vehicle which is to contain the remedy, we can secure perfect accuracy in the dose.

Perhaps one of the greatest inducements to recur to the old plan of dispensing may be found in the pecuniary benefits to be derived therefrom. An eminent physician, in speaking of the general practitioners of England, declared that they would ultimately raise themselves to be the almost exclusive medical practitioners of the land; "for low prices, with equal qualifications, will in the long run invariably carry the day." People may be embarrassed in determining the qualifications of their medical attendants, but they are never confronted with this difficulty in estimating the expenses. Herein lies the chief attractive point of the "homœopathic" practice. What can be more agreeable than to avoid taking the "nasty medicine," which is almost as expensive as the doctor's visits! For this reason alone there are many who will employ these charlatans while nature is working a cure, or until some alarming symptom induces them to drop the man of sugar and appeal to the wisdom of the "old school" doctor, whom they usually regard as their "sheet-anchor" in the hour of real trouble, but, like the sheet-anchor, he is only thought of when there is danger of a wreck. The druggist's bill is an item of no mean importance, particularly so to those in moderate circumstances, and we need not wonder that there exists a strong desire to escape a bill of this kind, which, in a case of tedious illness, is sometimes as large as that of the attending physician. It is said that a retired apothecary, upon being asked how he had made his fortune, promptly responded, "By selling aqua destillata." Now, aqua *Schuylkillensis*, though not so elegant, is in many instances quite as efficacious, and may be had for nothing. A few drops of aconite, nitre, or morphia disseminated through this vehicle will answer all the purposes of the same mixture put up in a bottle elaborately labelled, wrapped, and tied, and will be the means of saving time, trouble, and expense.

I do not wish to ignore the real value of those honorable and cultivated gentlemen who in the skilful and intelligent pursuit of their calling have made themselves ornaments to the pharmaceutical profession as well as invaluable aids to our own; but there is a class styled "pharmacists" whom we would gladly do without. These men are the vendors (and sometimes the factors) of every variety of patent medicine, agents for homœopathic "specifics," and almost anything else by which they may turn a penny. Many of them are in the habit of prescribing for the sick, the nature of whose ailments they know nothing about; and some months ago my attention was directed to one more enterprising than his fellows, who added to his already onerous duties the "labors" of an obstetrician. This new branch of the business, however, he was soon led to relinquish through the fright he received in a case attended with post-partum hemorrhage.

Dr. George B. Wood, in an address delivered before the College of Pharmacy, says of these irregular practices, "Do you suppose that medical men can with complacency behold their peculiar province invaded, their sources of livelihood cut off, the very bread taken from their mouths? Will they not be compelled in self-defence to make resistance? and can resistance be made anywhere so effectually as on the ground of your adversary? It appears evident to me that were apothecaries to undertake the management of diseases, physicians would almost universally recur to the plan they have abandoned, and, like their brethren in other parts of the continent, would supply their own patients with medicines." I think it is our duty to discountenance in every way those who are at all open to this charge, and who make the art of pharmacy merely an *addendum* to what may be termed a "general notion" or commission business in articles having no relationship whatever to medicine.

Many will be surprised at the number of remedies in daily demand that are, or can be, used in a very concentrated form, also at the number of solid substances capable of being held in strong solution. Dr. Squibb, of New York, has invented a ready way of accurately dispensing powerful fluids by using a pipette with a capacity of from one to thirty minims. This little instrument is used by plunging it into the liquid in the vial up to the minim mark which indicates the desired quantity, then, closing the upper end with the fore-finger, the charge is transferred to the vessel in which the doses are to be mixed. Dr. Squibb also offers a list of forty-four articles of the active materia medica in their most potent and concentrated form.

Did space permit, I might dwell upon the easy manner in which this mechanical duty may be performed, and enumerate the many valuable remedies that may be prepared in such a way as to occupy but a very small space in the pocket-case, from which they can be dispensed with advantage to ourselves and patients.

1813 Columbia Ave.

NOTES OF HOSPITAL PRACTICE.

EPISCOPAL HOSPITAL.

SERVICE OF LOUIS STARR, M.D.,

Acting Visiting Physician.

Reported by Dr. B. J. Ruddrow, Resident Physician.

CASE OF DIFFUSE PULMONARY GANGRENE FOLLOWING PNEUMONIA.

A. R., 43 years of age, a dyer by occupation, was admitted to the medical ward on July 31, 1875. He had a healthy family history, and, notwithstanding intemperate habits, enjoyed good health himself until 1866. After this time he suffered occasionally from intermittent fever, and had frequent attacks of diarrhœa during the summer months, but was never ill enough to be confined to bed. For the past six months he had been unusually strong and well, though he had made no change in his mode of living.

Early in July, however, he began to have diarrhœa; this, as it was of the same character as he had always had in warm weather, caused him no uneasiness, and he continued to work until the 26th, when he had a severe chill, followed by fever, pain at the base of the right lung, difficulty of breathing, and cough, attended with the expectoration of tenacious mucus. These symptoms continued until he was brought to the hospital, the only change being in the sputa, which became rusty and slightly fetid.

When admitted, he was very weak and much emaciated, having, he stated, lost flesh rapidly since the beginning of his sickness; his face was flushed, his skin hot and dry, and his pulse 120 per minute, weak and compressible; there was considerable pain in the right side of the chest, great difficulty of breathing, and frequent cough, with a free expectoration, the sputa being brownish-red in color, frothy, very offensive, and not at all tenacious; his tongue was heavily coated with a dark-yellow fur. There was almost complete anorexia, considerable thirst, and some tendency to diarrhœa.

On examination, the right side of the chest was found to be slightly bulging, and the intercostal depressions were less marked than on the left side. There was dulness on percussion, with diminished elasticity extending over the whole of the lower lobe; this was most marked posteriorly, in which position there were also bronchial breathing and a few subcrepitant râles. The left lung was normal. The abdomen was tympanitic. The superficial veins of the right side were distended, and on palpation the smooth edge of what appeared to be an enlarged liver could be distinctly felt, extending from two and a half to three inches below the margin of the ribs on the right side. Over this tumor the integuments were somewhat œdematous, and pitted slightly on pressure. There was no ascites. The heart-sounds were feeble, but no murmur could be detected. The urine contained a small quantity of albumen.

The patient was put upon supporting treatment, and a jacket-poultice was applied to his chest.

During the night of July 31 and the following day his condition remained about the same.

On August 2 he was very weak, and slightly delirious, tongue brown and dry, lips and teeth covered with sordes, pulse 120, respiration quick and labored, breath very offensive, cough constant, with free expectoration, sputa very fetid, dark brown in color, containing small tinder-like clots of blood. Physical exploration revealed flatness on percussion over the whole posterior aspect of the right chest, and from the third rib to the base laterally and anteriorly, while above this line the resonance was impaired. Alterations in position caused a moderate change in the level of the flatness on the anterior and lateral surfaces, though none on the posterior. Over the area of flatness the respiratory murmur was feeble and distant, and the vocal resonance and fremitus diminished. These signs were most marked posteriorly; when he was placed on his belly, however, the respiratory murmur was louder, the vocal resonance and fremitus more distinct, and numerous moist râles became audible. Loud bronchial râles, both dry and moist, could be heard on either side of the chest; they were more distinct on the left, where they were attended by a decided fremitus; in other respects the left lung seemed to be healthy. The heart-sounds were very weak.

At 3 P.M., about two hours after the above examination was made, he took advantage of the temporary absence of his attendant to get out of bed and walk to the water-closet, where he was found dead a few moments afterwards.

At the post-mortem examination, which was made five hours after death, rigor mortis was well marked. On opening the thorax, the middle and lower lobes of the right lung were observed to be bound to the walls of the chest by firm adhesions; the upper lobe was free, the pulmonary and costal pleuræ being separated by a layer of serous liquid, which, when carefully removed, measured one ounce. The upper lobe was congested; the lower and middle lobes were completely hepatized, and in the upper posterior portion of the former there was a large sac, about three inches in diameter, which contained nearly a pint of thick, greenish-black, excessively fetid fluid, mingled with shreds of broken-down lung-tissue. The walls of this sac were formed by the thickened pulmonary pleura externally, and by the decomposing and œdematous lung-tissue internally. Incisions made in the hepatized portions of the lung gave exit to a thick, greenish-black ichor, having a very offensive and slightly alliaceous odor. The lung weighed six pounds. There was nothing abnormal in the left lung, except some congestion of the lower lobe.

The pericardium was healthy; the heart was normal in size, and there was no valvular lesion, but there was a large, firm, ante-mortem clot occupying the right ventricle and auricle and extending into the pulmonary artery.

When the abdominal cavity was laid open, the liver was found to reach three and a quarter inches below the right costal border. The organ was enlarged and fatty, and weighed six and a quarter pounds.

The kidneys were somewhat fatty.

The other abdominal organs were free from disease, and there was no fluid in the peritoneal cavity.

Remarks.—This case is interesting not only as an example of a rare condition,—viz., pneumonia culminating in diffuse gangrene,—but also from the fact that during the latter part of the attack the physical signs resembled those observed in pleurisy with effusion. The change in the line of flatness over the anterior and lateral surfaces of the chest when the position was altered can hardly be explained by alterations in the level of the small amount of fluid situated over the upper lobe. But, even supposing this to have been so, it could have had nothing whatever to do with the development of râles, the increased respiratory murmur, and augmented vocal resonance and fremitus noticed over the posterior portion of the lower lobe when the patient was placed on his face. Bearing in mind the post-mortem appearances, a more rational explanation seems to be that the fluid which was contained in the sac, as well as that which infiltrated the whole of the middle and lower lobes, was affected by gravity, and, being displaced by changes in the position of the body, allowed the small portions of these lobes still permeable to air to approach nearer the chest-wall.

TRANSLATIONS.

THE PRACTICAL VALUE OF THE ENDOSCOPE IN DISEASES OF THE URETHRA (Dr. J. Grünfeld: *Wiener Med. Presse*, No. 26, 1875).—In the treatment of chronic gonorrhœa when but small portions of the urethra are affected, the use of the endoscope is often of great assistance not only in carrying out the treatment but also in making an accurate diagnosis. If there is a well-marked infiltration, the diseased parts may be treated by the application of a diluted solution of iodine, applied by introducing a brush through the tube of the instrument. By this treatment the condition of the mucous membrane is much changed, and only a thickening remains, which can be benefited by cauterization with a finely-pointed crayon of nitrate of silver or sulphate of copper. This cauterization of the mucous membrane is said to give rise to but slight pain.

In other cases the gleet is due to a papillomatous growth of the mucous membrane, which, after its situation is accurately established, can be removed by means of forceps.

A case of this kind was treated by Dr. G. two years ago; numerous ones of a similar character have since been met with by him. The endoscope is also of value in the treatment of stricture the entrance to which cannot be found by the use of bougies of small calibre, for by its use the orifice can be discovered and a course of treatment instituted. W. A.

A Case of Floating Kidney (*Bull. Gén. de Thérap.*, July 30, 1875).—M. G. Cabanellas reports the case of a man, æt. 36, who suffered from severe pain in the right lumbar region, where it was easy to discover a small rounded tumor, which was painful on pressure. He had had this trouble for many years. On consultation it was decided that the case was one of luxation of the right kidney without any organic disease.

The patient also suffered from obstinate constipation, so that he had an evacuation but once in five or six days, and then only by efforts which he compared to an *accouchement*. He was advised never to attempt to empty his bowels without having first taken a continuous injection of warm water, keeping it up for a half-hour or more. He followed this advice faithfully, and, as his constipation disappeared, the pain and swelling also vanished, and he regained excellent health.

J. W. W.

Hemorrhage in a Case of Empyema arrested by Plugging the Thoracic Cavity (*Bull. Gén. de Thérap.*, July 30, 1875).—In a case of empyema which was being treated by drainage, hemorrhage from the opening in the chest supervened, and resisted all the ordinary methods of treatment. In order to assure himself of the exact origin of the hemorrhage, M. Letiévant removed a large portion of the intercostal space, but, this opening being insufficient to permit of a complete examination of the pleural cavity, he resected four centimetres of the two ribs parallel to his first incision. He then plugged the thorax and succeeded in arresting the hemorrhage. The patient recovered. The reporter justly asks why he resected portions of two healthy ribs when the intercostal opening would have sufficed for the operation of plugging. J. W. W.

The Changes in the Brain in Chorea Minor (Dr. Julius Elischer: *Virchow's Archiv*, lxiii. 1875).—From the examinations which he has made, Dr. Elischer concludes that the original causes of chorea cannot be referred to a single organ. The changes found in various organs which have been examined, including the peripheral nerve-trunks, spinal cord, and central ganglia of the brain, show that the advance of the disease is not confined to one locality. They show also that the pathological evidences by which it is characterized depend upon irritative processes. This latter view is sustained by the increase of the nuclei in the connective tissue of the peripheral nerve-trunks and along the vessels of the cord, and in one case, of which he made a most detailed examination, by the thickening and chalky deposits in the external tunic of the vessels of the thalami and corpora striata.

In these results of irritative processes retrograde metamorphosis takes place, and thus the results which attract the most attention in the blood-vessel system are reached. From all this he thinks that these changes (granting that they are really characteristic of chorea) result from an irritant, the influence of which is diffused over all the nervous system, but which acts more powerfully at some points than at others. W. A.

On an Anomalous Canal for a Deep Temporal Artery springing from the Middle Meningeal Artery within the Skull (Dr. Gruber: *Virchow's Archiv*, B. lxiii. 1875).—Twenty-two years ago Dr. Gruber called attention to an anomaly of the origin of a deep temporal artery from the meningea media during its course within the skull, and since that time he has been looking for it, but unsuccessfully. He has, however, found the canal several times in the temporal bones of macerated skulls. In an examination of about four thousand skulls the anomaly was met with twenty-five times: six times upon both sides, eight times upon the right, and eleven times upon the left side. The object of the canal is to permit the escape from the skull of a deep temporal artery which originates from the middle meningeal, and after its escape from the bony canal becomes a supernumerary temporal artery. W. A.

Fracture of the Larynx.—Chailloux (*Thèse de Paris*, 1874) examines from a surgical-forensic standpoint those unusual cases of fracture of the larynx which are caused by strangling and hanging. The thesis, however, has nothing essentially new upon the subject, so that, although containing notes of various scattered cases, and, therefore, convenient for reference to those conversant only with French, it is inferior to the work of Gurlt on Fractures.—*Centralblatt f. Chirurgie*, No. 25, 1875. X.

Method of Operating in Anal Fistula.—M. Jules Felix, of Brussels, employs a ligature of stout English silk, one end of which is passed through the fistula and back through the anal opening. The ligature is then moved backward and forward with a see-saw motion, cutting its way rapidly through the intervening tissues until a complete section is made, as with the écraseur, without the loss of a drop of blood.—*Le Mouvement Médical*, No. 28, 1875. X.

THERAPEUTIC NOTES.

Anti-Catarrhal Pills.—

℞ Gum. ammoniac., gr. xxx;
Ammonii carbonat., gr. xv;
Ipecac. pulv., gr. iii;
Morphiæ muriat., gr. iss;
Mucilaginis, q. s.—M.

Ft. in pil. no. x. Coat with balsam of tolu dissolved in chloroform. Take one pill morning and evening in chronic bronchitis.

Dressing for Ulcers.—

℞ Olei cadini, ʒss ad ʒi;
Pulv. calcii sulphat., ʒvj.—M.

To be thinly spread on dressings for ulcers, and renewed three, four, five, or six times daily, taking care to cleanse the ulcers after the dressing has been removed. Of especial value in the treatment of profuse and fetid suppuration.

Treatment of Lead-Colic by Chloroform.—Chloroform has lately been used in lead-colic, both externally and internally (by inhalation), with advantage. Dr. Barduzzi has employed the following formula with success in one case which had resisted other forms of treatment.

℞ Chloroformi, ʒi;
Syr. acaciæ, ʒii ʒvii;
Aq. destillat., ad fʒvj.—M.

This potion is administered in two parts, with a quarter of an hour interval.

In Dr. B.'s case this potion was given three times in thirty-six hours, with the effect of relieving the patient greatly.

Inunctions with a chloroform embrocation were at the same time employed on the abdomen.

In Syphilis.—

℞ Hydrarg. bichlor., gr. i;
Opii, gr. ii;
Pulv. glycyrrhizæ,
Ext. gentian., āā ʒss.—M.

Ft. in pil. no. 16. One to be taken morning and evening after eating.

PHILADELPHIA
MEDICAL TIMES.
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MEDICAL AND SURGICAL SCIENCE.

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EDITORIAL.

UTOPIA.

THERE can be no doubt at the present day that all individuals are not equally responsible for their offences against law or morality. Hereditary predisposition, the presence or absence of the "criminal neurosis," the influence of education and surroundings, are all powerful factors in the production or prevention of crime; and the time will come, we hope, when the circumstances determining these conditions shall have been so carefully studied and recorded as to permit of a natural and rational classification of criminals into various divisions, ranging from the thoroughly responsible to the totally irresponsible and insane. When this is done accurately and scientifically, when it shall be possible to distinguish with but little risk of error between the poor wretch who is blindly impelled to his deeds of lawlessness and outrage by an influence generated, perhaps, before he was conceived, and the cold-blooded, methodical villain, who, knowing the right, deliberately seeks the wrong, it will also be possible to apportion to each his proper meed of punishment, and restrain, confine, or execute with some regard to the relation which should obtain between the punitory measure and its object.

We can look forward then to the recognition by legislators of the fact that "moral and physical disease may have a common origin, and consequently common laws of cure," and to the elucidation by physicians of those complex organic processes which, according to Maudsley, render lunatics and criminals "as much manufactured articles as are steam-engines and calico-printing machines." We can then hope to have framed not only retributive but also prophylactic and curative laws, and to see the medical expert a recognized authority in every tribunal of justice and a guide and counsellor in its judgments. We shall understand or abolish such apparent discrepancies as on the one hand the conviction and execution of a mere child for causeless and objectless murder, and on the other the exoneration on the ground of "insanity" of the "spiritual adviser" of a pious congregation from the undenied charges of indecent assault and attempt to commit rape. We shall know why lawyers, when they sin, peculate, why clergymen, of late years, fall victims to the temptations of the flesh,* and why physicians—never wander from the path of rectitude.

While waiting, however, for the accumulation and development of this knowledge, if we are evolutionists we can solace ourselves with the Spencerian belief that whereas "man's primitive circumstances required that he should sacrifice the welfare of other beings to his own, his present circumstances require that he should not do so." His powers of restraint and self-control, like his other faculties, increasing with use, it follows that "progressive morality is a necessary consequence of the evolution of life," and that, if no mental or moral cataclysm occur, time alone will bring about a condition of perfection.

"Roll swiftly round, ye wheels of Time,
And bring the blessed day."

LEADING ARTICLES.

THE INFLUENCE OF THE LOWER ORGANISMS IN THE PRODUCTION OF INFECTIOUS AND CONTAGIOUS DISEASES.

I.

MODERN, and especially recent, researches into the connection between infection and contagion, on the one hand, and the development of microscopic organisms, on the other, possess the deepest interest, not only for the pathologist but also for the practical physician. It is only by examination into the cause of disease-action that rational methods of prevention and cure can be fairly hoped for; and, although the work of the post-mortem room and the laboratory may seem to have but a remote bearing upon the clinical study of disease in many cases, yet it is by this in great measure that the physician of the future is to win his greatest triumphs.

* "When it was asked Ovid why Ægystus became an adulterer, he made no answer but this: 'Because he was idle.'"—RABELAIS.

Accepting this view, it is not necessary to apologize for offering in the pages of a journal intended for the practical physician a review of recent progress in our knowledge of certain points connected with the etiology of the infectious and contagious diseases.

Before presenting the analysis of these investigations which it is proposed to give, it seems advisable to allude to the subject of contagion and infection in general, and also to give some account of the organisms themselves which are now so generally believed to play a part in the production of the zymotic affections.

Two hypotheses in relation to the origin of the infectious and contagious diseases may be regarded as at present dominant, to the exclusion of all others. The first of these regards the poisons of infectious diseases as *chemical processes*. "A burning shaving," says Liebermeister, in elucidating this subject,* "can set fire to a house and an entire city. The chemical process of burning multiplies itself ad infinitum, so long as combustible material and oxygen are present under favoring circumstances."

The second hypothesis ascribes the disease-process to the *multiplication of living organisms*.

Among chemical actions it is chiefly the processes of fermentation and decomposition which, by their capacity for extension by means of the smallest quantity of matter, show the most striking analogy to the contagious diseases. The name "zymotic" diseases (from ζυμοῦν, to ferment), so generally adopted some years ago for this class of affections, shows the notion prevalent of their nature. "But the only ferment processes which can be taken into consideration are all associated with the presence and multiplication of low organisms. Accordingly, the existence of disease-poisons which have the capacity for infinite extension necessarily gives rise to the theory of a *contagium vivum*, and the conclusion can only escape those who satisfy themselves with the simple facts, and do not care to build up any theoretical idea on the origin of the diseases in question" (Liebermeister, *loc. cit.*).

It is certainly a fact that the hypothesis of living organisms as the origin of infectious disease has a high degree of plausibility to begin with, and though the evidence in its favor may be as yet comparatively meagre, conflicting in some details, and in many respects contradictory, yet it is constantly increasing by the labors of a host of conscientious and able workers; and the hypothesis itself bids fair to explain much in the action of disease which has hitherto been wrapped in obscurity.

The organisms to which are attributed the causation of disease belong to the lowest class of the vegetable kingdom. So minute are they, so little do they offer in the way of organization, and such formidable difficulties attend their investigation, that it is not surprising that their very nature, whether animal or vegetable, should long have been a matter of dispute.

Even at present, the whole subject of these lower organisms is beset with difficulties; not only their mode of action, but even their botanical nature and classification, continues to be the subject of active controversy.

Want of space, and the desire to avoid clogging with confusing detail an article intended rather for the general medical reader than for the specialist, prevent us going deeply into the subject of the classification and arrangement of the various organisms believed to be concerned in the origin and propagation of disease. Fortunately, we have at hand a very excellent article by Dr. L. A. Stimson, of New York,† from which we shall abstract such portions as seem necessary to elucidate our subject, and to which we can with pleasure refer any one desiring a clear and succinct *résumé* of the various names and classifications of the organisms under consideration which are at present in use, or which have been proposed.

The organisms of which we have been speaking are those commonly known under the general designation of bacteria or vibriones.

The terms *bacterium* and *vibrio* are well known, though their use is not infrequently coupled with a very imperfect idea of the organisms themselves. Briefly, it may be said that the term bacteria is, in France and Germany, ordinarily associated with microscopical bodies, round, oval, or rod-like, and jointed, found especially in putrefying vegetable and animal infusions. In England these organisms were formerly called vibriones, but this term is giving way to that of bacteria.

Used in a narrower sense, bacteria denotes stiff, rod-like bodies, single or jointed, motionless or endowed with an oscillating movement in place, while vibrio is applied to those that have an undulating, sinuous motion and move rapidly across the field of the microscope. These organisms are now almost universally believed to be of vegetable origin.

It would be impossible to give here an account of the various classifications proposed and adopted by different writers, but we shall endeavor to give some idea of those now most generally in use, in order that the terms used may be more intelligible. We extract from Dr. Stimson's article the classifications of Cohn and Billroth. Cohn, he says, makes the following divisions:

"BACTERIA.—Tribus I., *Sphærobacteria* (Ball bacteria): Variety 1, Micrococcus.

"Tribus II., *Microbacteria* (Rod bacteria): Variety 2, Bacterium, subdivided into B. termo and B. lineola.

"Tribus III., *Desmobacteria* (Thread bacteria): Variety 3, Bacillus; Variety 4, Vibrio.

"Tribus IV., *Spirobacteria* (Spiral bacteria): Variety 5, Spirillum (of Ehrenberg); Variety 6, Spirochæte (of Ehrenberg).

"Billroth makes no claim to a complete botanical classification. He deals principally with the forms which

* Ziemssen's Cyclopedia of the Practice of Medicine, Am. ed., vol. i. p. 10.

† Bacteria and their Influence upon the Origin and Development of Septic Complications of Wounds.—New York Medical Journal, August, 1875.

are found in animal infusions, and in the body during disease or after death. But, while he does not attempt to describe all the varieties, he gives a complete history of those which he has observed, tracing the whole cycle of their development, and showing so close a genetic relationship between them that it seems probable future investigation will show the others to be included in it. He considers all the forms combinations of spherical and cylindrical bodies, representing only different periods of development. His nomenclature and classification being based upon this opinion, he groups all under the name *coccobacteria* (κόκκος, a berry, and βακτηρία, a little rod), and gives to the different forms names which are compounds of these two with words denoting the number, size, and arrangement of the component parts; micro-, meso-, and mega-, signifying small, medium, and large; mono- and diplo-, single and double; strepto-, in chains; glia- (γλία, glue), in groups; asco-, in bags; and petalo-, in plates. This classification is simple and clear, for each name has the great advantage of describing accurately the form to which it is applied."

There are two terms met with constantly in recent pathological works which are not included here; these are *bacteridia* and *micrococcus* or *microzyma*. The former was applied by Davaine to long immovable forms of bacteria found by him in the blood of animals affected with anthrax; they belong in variety 3, bacillus of Cohn, while the latter is applied to the innumerable round or oval forms found in the tissues, secretions, or blood of persons suffering from septic diseases, and in putrefying liquids.

Bacteria are cells lacking chlorophyl, of spherical, oblong, or cylindrical form, which multiply by scission and vegetate either simply or in groups. Billroth and Cohn maintain that there is no genetic relationship between bacteria and any of the yeast-plants. Billroth, indeed, says that whenever any luxuriant yeast vegetation except oidium lactis is growing rapidly, the elements of coccobacteria do not flourish.

The germinative spores of bacteria, first described by Billroth under the name *dauersporen*, are glistening dark-bordered globules, which develop in their interior masses of coccos, which are set free by the bursting of the envelope, but are retained in contact with it sometimes by the presence of a mucous or gelatinous substance called *glia*. The coccos may multiply by lengthening and scission, or they may lengthen into bacteria, and gradually free themselves from the enveloping glia by their own active motions. This division or scission ordinarily occurs in one direction only (when it takes place at right angles also the well-known sarcinia forms are the result); the two pieces are held together by the glia, and each divides again and again. In this way rosary or chain-like forms result, the "streptococcos" of authors. The bacteria may often lengthen and divide transversely, forming the well-known jointed bacteria. All these developments, Dr. Stimson says, may be observed by any microscopist, and he has himself followed them frequently. The division or scission may take place so rapidly that each bacterium forms a streptococcos, and the result is a gelatinous mass filled with coccos, and forming what is known as zooglœa. If the glia is very tenacious it may form a sort of membrane about the mass, known as ascococcos (ἀσκός, a bag), which sometimes shows amœboid movements. After a time this membrane bursts, the coccos escape, and the empty husk is found at the bottom of the vessel.

The final fate of bacteria may be either to leave the enclosing husk as finely granular sterile mucus, to break up rapidly into micrococcos within the husk, expanding it considerably, and forming a variety of ascococcus, or to contract into one or more glistening, dark-outlined bodies which are the germinative spores (*dauersporen*) above alluded to, and which, after a certain period of repose, may again germinate. The vitality of the latter is not destroyed by freezing, boiling-heat, or by drying, and these spores carried about in the air are undoubtedly the principal agents in the production of coccobacteria. Billroth had some which germinated after having been kept eight years. This is the only form which withstands drying; the coccos and bacteria do not.

The isolated coccos possess only a motion which cannot be distinguished from the ordinary molecular movement of very small, inert portions of matter, the so-called Brownian movement. When, however, they remain united in chains (streptococcos) they appear to have a sinuous serpent-like movement, which carries them sometimes with great rapidity across the field of the microscope. Progression is made in either direction, and the large spiral ones often move forward and backward across the field with almost the regularity of a pendulum. Occasionally one end remains attached to a larger object while the other vibrates slowly to and fro, or the whole revolves rapidly about its long axis without change of place. The larger microbacteria chains are usually motionless, and the isolated bacteria show only an oscillatory motion without change of place. The motions seem to be dependent upon the fluidity of the medium and the presence of oxygen.

For their nourishment bacteria need carbon, nitrogen, and certain of the elements of the ashes of ordinary yeast. Bacteria resemble green plants in this, that they assimilate the nitrogen contained in their cells in the form of ammonia compounds, which animals cannot do; on the other hand they differ from green plants and resemble animals in this, that they cannot take carbon from carbonic acid, but only from the organic compounds of carbon, especially the hydrocarbons and their derivatives.

Bacteria are not parasites; they do not live upon the materials intended for the nourishment of the tissues in which they are found, and cause the death of these tissues by starvation, but they probably live upon some of the elements of the substance itself, by the withdrawal of which new chemical combinations of the others are caused. Putrefaction is a correlative phenomenon of life, because it occurs only when a microscopical vege-

table organism nourishes itself and multiplies at the expense of a part of the putrescible substance. This organism is the bacterium, at least in some of its forms or varieties. Billroth believes its form known as B. termo to be the only one which excites putridity. Cohn says that they multiply as long as putridity lasts, and disappear so soon as it ceases. He is convinced that B. termo is the ferment of putrefaction, as yeast is the ferment of alcoholic fermentation, and that no putrefaction can begin without it or progress without its multiplication.

Bacteria exist in one form or another in all water, most animal tissues, and in the air. In the latter they are found only in the form of germinative spores, the other forms not being able to support the absence of moisture. Their presence in the healthy living body has been recently demonstrated beyond cavil by Billroth and Tiegel.

The spores which float in the air or are deposited upon exposed surfaces remain inert and innocuous until the conditions necessary to their development are supplied, among which moisture is the chief. It is generally agreed that these spores stand very low degrees of temperature (even 0° Fahr.) without losing their vitality. As regards the higher temperatures, observers differ, Cohn maintaining that a temperature of 140° Fahr. is sufficient to kill the spores, while Billroth, on the other hand, says they can stand 212° Fahr.

To recapitulate: Bacteria are microscopical vegetable organisms of two main varieties: 1. Round or oval cells 0.0005–0.0010 mm. in diameter, single or arranged in lines or groups (sphærobacteria, micrococcus, Cohn; micrococcos, streptococcos, Billroth). 2. Cylindrical cells 0.002–0.003 mm. long, single, or arranged in lines (bacteria of both authors). There is no genetic relationship between them and ordinary mould or fungus. They are found in the air, water, and most animal and vegetable tissues. They are saprophytes,* not parasites, and are unable in themselves to cause any of the infectious diseases.

Having thus briefly sketched the current theories of contagion and infection, and having endeavored to give such an account of the organisms believed to be connected with disease-processes as to convey an intelligible idea of their general nature, we are prepared to examine the results of investigation as regards the influence of these organisms upon the production of the various infectious and contagious diseases. This examination, however, must be postponed to a future number of this journal.

SYPHILIS (*Archives of Dermatology*, July, 1875).—Stefanini reports the case of a young girl, who, having severe ulceration of the throat and velum, and iridocyclitis, which were unsuccessfully treated by the usual means, was rapidly cured by the injection of half a grain of calomel suspended in glycerin. Though no history of syphilis was obtainable, the author thinks the results of treatment warrant the diagnosis of that disease.

* Saprophyte, σαπρὸς, putrid, and φυτὸν, plant.

CORRESPONDENCE.

WASHINGTON, August, 1875.

TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

SOME two years ago a prominent druggist of this city called my attention to the "Damiana" plant, claiming for it powerful aphrodisiacal properties. From his testimony and other certified evidence, I was tempted to give it a trial in that class of diseases generally termed "female weakness." My experience in these cases was quite satisfactory. In my hands it seemed to possess decided tonic properties, and when administered in combination with some of the ferruginous compounds, either the iodide or citrate, —giving of the "damiana" ʒij at a dose,—its beneficial effects were speedy and decided. With regard to its aphrodisiac virtues, my experience is as follows:

Case I.—In the early part of May last I was applied to by a negro woman aged 24, married four years. Three years before, she had been troubled with some uterine difficulty, the result of which was entire suppression of the menses; never had seen anything since. Her belief was that she had been "conjured" by some influence. She had never been pregnant, which was a source of unhappiness to both herself and husband. Her general health was good, save a slight leucorrhœa and pain periodically in the top of the head. I prescribed a general tonic and the "damiana" in ʒiij doses three times a day. Three months later her husband called at my office (they lived some forty miles in the country) to report progress; said his wife had "done had her sickness twice, and got all the 'signs' of being in that way," and her leucorrhœa had also disappeared.

Case II.—A young man aged 32 had lost his virility through excess and dissipation; all sexual desire entirely wanting; had been in that condition for some eight months. Came to me for treatment about the 12th of June last. I gave the ext. (fld.) damiana in ʒij doses three times a day; in about two weeks he reported decided improvement; continued treatment for about two months, and then he reported his manly functions entirely restored.

E. A. DUNCAN, M.D.

PROCEEDINGS OF SOCIETIES.

COLLEGE OF PHYSICIANS OF PHILADELPHIA.

JUNE 2, 1875.

Case of encysted dropsy of the peritoneum, in which suppuration had occurred and abdominal section was performed, with recovery.

DR. J. EWING MEARS read a paper describing the case of a lady, æt. 40, who had had six children, the youngest being 7 years of age. She dated the beginning of her illness from the last confinement, in which she was informed that the placenta was adherent, and she suffered severely from post-partum hemorrhage.

About three months after confinement, she noticed a small swelling in the right inguinal region; it was

freely movable, so that it could be pushed about by the finger. For the period of one year the swelling remained quiescent, then it began to enlarge until it attained the size of a large goose-egg.

On making an examination, Dr. Mears found the patient much emaciated and debilitated. The heart's action was feeble and intermittent. Orthopnœa was present. The expression of the face was haggard, and betokened much suffering. The pain was constant and of the most exhausting character; the patient expressed herself as suffering from a "great burden" There was no œdema. The abdomen was enlarged to the size of a full-term pregnancy. The surface was smooth and regular, and the veins were not enlarged. The abdominal walls were not very tense, but they could not be lifted from the tumor. On percussion, resonance was elicited over the entire surface as far below as the line of the umbilicus; below this line dulness was marked on both sides, especially on the right. Fluctuation was not very distinct, but still was perceptible, giving evidence of imprisoned fluid. Change of position did not affect the percussion-sounds.

A vaginal examination showed that the uterus was in a condition of marked anteversion and fixed in its position. Pressure applied to the tumor through the abdominal walls did not move the uterus. Owing to its fixed position, it was impossible to introduce the sound to a greater depth than one inch. The finger in the vagina could detect a tumor in the pelvic cavity.

The diagnosis could not be made exactly, but an operation of exploration was advised and was consented to, and performed as follows. The abdominal cavity was opened by making an incision two inches in length in the linea alba, midway between the umbilicus and the pubes. On introducing the finger, he found adhesions between the tumor and the parietes of the abdomen, which were separated with some difficulty. He enlarged the incision to four inches, in order to obtain a more extended view of the tumor. Through this opening he introduced his hand and separated the parietal adhesions, which were general. On making an examination after the separation, he found that the anterior wall of the tumor was in great part above, formed by the great omentum, covered by a dense layer of lymph, and firmly adherent to the subjacent intestines; its lower edge was rounded and was fastened to the intestines below, forming a smooth junction with them. Below the border of the omentum the intestines were firmly adherent, and formed the remaining portion of the anterior wall.

Seeking for the line of attachment between the intestines, he made an opening with his finger, and gave exit in this way to over two gallons of fibrinous pus. The adhesions between the intestines were freely broken up, and free exit thus given to the contents. Owing to the very firm adhesions between the thickened omentum and the intestines which lay beneath, it was found impossible to separate them. The effort made to accomplish this detached at one point the peritoneal layer of the bowel. The omentum was extremely vascular, and free hemorrhage occurred on section of it. At one point Monsel's solution and the hot iron failed to control the bleeding, which yielded finally to the application of a carbolized silk ligature, the ends of which were cut off close, when the ligatured portion was returned to the cavity of the abdomen. The parietal peritoneum could not be recognized as such, the entire inner surface of the abdominal wall being covered by a layer of lymph, measuring at least one-third of an inch in thickness.

The intestines were fastened together by dense bands of lymph, and their surfaces were also covered by dense layers. On making a section of the omentum, the normal fat tissue was found surrounded by layers of lymph one-half of an inch in thickness.

The abdominal cavity was cleansed by soft sponges, and the wound closed by five iron-wire sutures, an opening being left at the lower part for the purpose of drainage. The dressing was completed by the application of a compress of cotton-wool and bandage, and the patient was placed in bed, and one-third of a grain of morphia given hypodermically. The pulse was 96, and feeble; the skin was cool; vomiting occurred. Towards evening, reaction was fully established, the pulse rising to 118 and the skin becoming hot. The catheter was employed to relieve the bladder, the color and quantity of the urine being normal. A diet of barley-water was ordered. Morphia in one-third-grain doses was given hypodermically as required.

The after-treatment consisted chiefly in supporting measures, the administration of quinia and iron, and careful attention to the wound and syringing out the cavity with a weak solution of carbolic acid.

When the character of the cyst is considered, the difficulties of the diagnosis in this case can be fully appreciated. The history distinctly pointed to the existence of a tumor originating in the right inguinal region, at first quite small and freely movable under the finger. The physical signs showed unmistakably the presence of a tumor containing fluid. The absence of resonance on percussion was caused by the thickened overlying omentum, and the thick purulent fluid in the cyst gave rise to quite well-marked fluctuation. Inferiorly, the walls of the cyst were so thickened by plastic deposits as to prevent the determination of its true nature by vaginal examination. The decline in the health of the patient during the last year might have been accounted for by suppuration in an ovarian cyst. It was no doubt caused by suppuration in the false cyst.

The question as to the proper treatment to be adopted in these cases is one of importance. The question relates rather to the method in which the proper treatment should be carried out, as it is impossible to conceive of any treatment leading to a successful result other than that which should promptly give exit to the purulent fluid and prevent its accumulation. This may be accomplished by tapping, or by incision, as practised in this case. In those forms of encysted dropsy in which the fluid lies in front of the intestines, evacuation with the trocar can be obtained without danger. Where the cyst lies behind the intestines, tapping through the abdominal walls would involve the great danger of puncturing the intestines which compose in part the walls of the cyst.

After the reading of the preceding paper, Dr. WILLIAM PEPPER said,—

Cases which may strictly be called encysted dropsy of the abdomen, though rare, are occasionally met with, either as a result of localized subacute peritonitis, or from the pseudo-cystic transformation undergone by large intra-peritoneal clots of blood. In such cases the seat of the fluid collection varies much. It may be within the fold of the great omentum, or in any segment of the abdominal cavity, being bounded partly by the surface of the adjacent viscera, and partly by the new-formed wall of lymph or fibrin. In several of the cases which he has observed, the cause of the attack has been a traumatic one.

ANEURISM OF THE INNOMINATE (*The Lancet*, July 31, 1875).—Mr. Frederick Ensor reports a case of innominate aneurism, in which he ligated the left common carotid at its bifurcation, the patient surviving for sixty-five days. He believes that chronic alcoholism and syphilis are the two most important causes in bringing about that condition of the artery which results in aneurism.

GLEANINGS FROM OUR EXCHANGES.

COMMON COLDS (*The Practitioner*, July, 1875).—Dr. J. Milner Fothergill briefly considers the causes and the treatment of common colds. Whenever and wherever they are met, they are the consequence of a chill, either to the general surface or to a portion of it. Ordinarily the body temperature is maintained by the equilibrium existing between the internal heat-producing area and the external heat-losing area, or the surface. When excessive heat-loss is not met by increased heat-production, a chill or lowering of the body temperature is the consequence; or if heat-production has been great, the cutaneous vessels are dilated, and if the surface be suddenly exposed to cold these dilated vessels are apt to be paralyzed instead of incited to contraction, and then heat is rapidly lost from the mass of warm blood in the cutaneous vessels. The catching cold or the escape from doing so depends upon the state of the vessels of the surface and their capacity to contract or the opposite. Consequently we can see that catching cold or escaping from it under apparently identical circumstances depends upon a condition far removed from either vision or sensation. Where heat-loss is met by heat-production at the time, no unpleasant consequences result; but where the heat-regulating processes are delayed, the loss of heat and fall of temperature at the time are followed by an excessive heat-production, constituting a pyretic condition which in its simplest form is a cold.

Obviously, the indications for treatment are to restore the balance between the heat-producing and heat-losing areas; and in order to do so we resort to such measures as shall increase the amount of blood in the outer area, and so diminish the amount in the internal area; that is, to increase heat-loss and lessen heat-production. We consequently use hot fluids, nauseant diaphoretics, warm beds, opium, and quinine, the latter usually after the action of the skin has been re-established.

DIET OF INFANTS AFFECTED WITH ACUTE INTESTINAL CATARRH (*The Boston Medical and Surgical Journal*, August 12, 1875).—Dr. R. Demme, after an extended experience, recommends as the most appropriate food for infants affected with gastric or intestinal catarrh the following diet: Add from a quarter of a pound to a pound of beef, freed of fat, to two quarts of cold water, and let this stand from half an hour to an hour; then boil down to one pint; after cooling, skim off fat from the top, and filter. At each time of using (every two or three hours) without being warmed, this is to be mixed with freshly-prepared rice- or barley-water. In the intervals of meals the latter should be given alone, best without sugar, to relieve the thirst. If this food is refused, he gives a drink made with the white of an egg, using according to age from one to three eggs in half a pint to a pint of water which has been previously boiled and cooled down to 98°. If the child's strength begins to fail, brandy in doses of from five to thirty drops is added to the rice- or barley-water, from three to five times a day. With older children a mixture of milk with the rice-water or barley-water may be tried.

A PATHOGNOMONIC SIGN OF THE MORIBUND CONDITION (*The Practitioner*, July, 1875).—Dr. John Shrady maintains that the earliest and therefore the most valuable symptom of approaching death is the up-and-down movement of the trachea; that the inferior laryngeal nerve, owing to a partial paralysis or impairment of its function, is concerned in the production of this phenomenon, and sounds the first note of alarm that the medulla oblongata is invaded. This tracheal symptom is particularly prominent in fatal cases of uræmic convulsions, opium-poisoning, apoplexy, and delirium tremens; the air then ceases to stimulate the glottis, the respiratory movements are impaired, and the lungs can no longer decarbonize the blood. In pneumonia, Dr. Shrady thinks this symptom is of special value, anticipating, as it does, alarming changes in pulse and temperature, whilst in phthisis he has known it to be a precursor of death three weeks in advance. Its presence or absence in membranous croup should, in his opinion, be an important element in the prognosis of a given case of tracheotomy.

TREATMENT OF CHOLERA (*The Practitioner*, July, 1875).—Surgeon A. R. Hall, presuming the morbid state against which we have to contend in the collapse of cholera to be one of asphyxia caused by spasms of involuntary muscular fibres, due to a condition of hyperactivity of the sympathetic nervous system, asserts that the logical inference distinctly points to the exhibition of a remedy calculated to neutralize this condition. Such remedies are to be found in a class of agents which directly depress the activity of the muscular fibres of the circulatory apparatus. As medicines given by the mouth are generally immediately rejected, hypodermic injection is the best method of administering the drug used, which should be a pure sedative, chloral hydrate being the most efficient. It should be given in a solution of the strength of one part of the chloral to ten of water. Mr. Hall mentions nineteen cases treated on this plan by an Indian surgeon, seventeen of which recovered.

CONDITION OF THE BLOOD-VESSELS IN THE BRAIN OF THE INSANE (*The Dublin Journal of Medical Science*, June, 1875).—Dr. Atkins, having reviewed the morbid changes found in the cerebral vessels of the insane, portrays as follows the clinical effects which accompany and are caused by these changes. Starting with the condition of dilatation, we can at once see that, should active arterial hyperæmia be the initial cause, over-nutrition of the brain-cells will take place, exaltation of function will follow, the ideas will flow free and fast, fancy will be excited, imagination aroused, motor impulses become uncontrolled, and acute mania will be the result. Should this active hyperæmia change to passive congestion and stasis occur, a lowering of nutrition takes place, depression follows exaltation, the ideas become slow and shallow, indifference succeeds excitement, emotion becomes impeded and sluggish, and secondary dementia gradually supervenes. Should stasis persist, organic changes in the cell-elements ensue, blocking up of the outlets for waste products follows, resulting in the infiltration of these products into the tissues, apathy succeeds indifference, consciousness and volition are gradually abolished, the calls of nature neglected, and the unfortunate sufferer sinks into a state of hopeless fatuity. Years may elapse between these different stages, or the progress may be in the reverse direction,—towards health and recovery.

SLEEPLESSNESS (*The Lancet*, July 31, 1875).—Dr. George Johnson, in a lecture on the effects of overwork and mental anxiety, alludes to the sleeplessness and anorexia which are almost invariably caused by these conditions. He says it is not always easy to determine whether the loss of appetite is a direct result of the nervous excitement, or whether the restlessness is a result of the diminished supply of nutriment to the brain; but that it is probable that the two conditions have a mutual influence upon each other. In cases resulting from overwork, he has observed in numberless instances that a man who has been more or less restless for many months, and who, during that time, has had a loathing for food, after taking a grain of opium at bedtime for a few nights sleeps soundly for several

hours, and then wakes with an appetite. This tends to prove that in such cases the derangements of the nervous system are first in order of time and importance.

In cases of delirium tremens, the reverse is true; the delirium, wakefulness, and other evidences of nervous disorder are directly due to malnutrition of the brain, and, in spite of all treatment by drugs, will continue until a certain amount of nutriment has been absorbed. In these cases the substitution of narcotics for food has often been attended with rapidly fatal results. We see, then, that in delirium *a potu*, sleep follows and is favored by taking food; in cases previously nervous, the soporific effect of opium or chloral procures sleep, and then restores the appetite and assists digestion.

EXTIRPATION OF A TUMOR OF THE BLADDER (*Boston Medical and Surgical Journal*, July 8, 1875).—Dr. Carl Gussenbauer reports the case of a boy, æt. 12, who was supposed to have a vesical calculus, but who was discovered by Prof. Billroth to have a tumor of the bladder, and was operated upon by him in the following manner. After the patient was narcotized, the lateral incision for removal of stone was made. The finger introduced into the bladder showed immediately that a tumor nearly the size of the fist, with an uneven surface, projected from the posterior wall and extended towards the top of the cavity of the bladder. Owing to its size, it was found impossible to extract the tumor, with the finger, from the perineum. A supra-pubic incision was then made, without injury to the peritoneum, and to give sufficient room both recti muscles were cut across at their insertion; also a transverse incision into the bladder was made. Prof. Billroth soon came to the conclusion, after examining with the finger, that the use of the écraseur was not practicable or desirable, as the tumor possibly might be already adherent to the peritoneum, in which case the latter would have been so injured as to delay healing. He therefore decided to tear the tumor with his finger near its base, and to cut out the remainder from the wall of the bladder, after passing a ligature round to check bleeding. The extraction of the torn pieces of the tumor was not so easy, in spite of the large size of the incision, as would have been supposed. In dissecting out the pedicle it was necessary to turn the bladder partly inside out. It then appeared that the tumor took its origin from the muscular coat of the bladder, but had not attacked the outer coat or the peritoneum. The plan was, in case the peritoneum had been opened, to close the hole with sutures. Two arteries were tied, and the ligatures brought out through the upper incision in the bladder. The wound in the bladder was not closed, but a drainage-tube was drawn through the bladder, and brought out at the incision in the perineum. There was no subsequent difficulty, and in one month the patient was discharged, perfectly well. The tumor was found to be a well-marked, mixed tumor, principally a myo-sarcoma, but in places a myo-carcinoma.

PERIODICAL MELANCHOLIA (*The Medical Record*, August 14, 1875).—Dr. William Suflet, after careful study of numerous cases, has observed that, although repeated attacks of melancholia in the same person are not unusual, yet they are generally very few and very far apart, and if the patient does not entirely recover he passes into a permanent state of melancholia, or into some other form of insanity.

Loss of flesh invariably accompanied the attacks, and an increase in weight always followed as soon as they were over.

The attack always commences with a subacute anæmia. The general anæmia continues during the entire attack, and disappears during the interval. The skin and the mucous membranes are pale; the pulse is small and feeble; the veins, on the contrary, dilated and distended with blood. These phenomena are also quite constant and admit of no exception.

As regards the treatment of the disease itself, it is necessary to bear in mind that the psychical organ in this state is unable to produce any but painful sensations, and therefore all kinds of excitation, all impressions, even pleasant ones, have to be avoided, and the patient must be advised to keep quiet bodily and mentally. A few days' rest in bed is sometimes the most beneficial remedy. Exercise, travelling, admonition, and religious consolations only aggravate the psychical hyperæsthesia. On the contrary, everything that produces relaxation of the vaso-motor spasm, and congestion to the brain, acts beneficially. Thus, prolonged tepid baths, and, above all, opiates, though only palliatives, often make life endurable, especially in the variety of melancholia with great præcordial distress.

Other remedies which act similarly may also be tried, like inhalations of ether, chloroform, nitrite of amyl, chloral, etc.

CURE OF CYSTITIS BY DILATATION OF THE NECK OF THE BLADDER (*The Medical Record*, August 14, 1875).—Dr. Howe reports the case of a woman, æt. 35, who had for more than a year been afflicted with a chronic cystitis for which various remedies had been tried without avail. It was decided to try the effect of dilating the neck of the bladder, in order to give the organ a rest and to examine the inflamed membrane. She was placed under ether, and the urethra gradually dilated with Molesworth's dilator until it was large enough to admit a finger. The bladder was thoroughly washed out, and she was then placed in bed and given quinia in tonic doses.

She complained of soreness about the urethra, and the urine dribbled from the bladder until the fifth day after the operation, when the sphincter muscle again resumed control. From that time on, micturition was performed in a natural manner, without pain or uneasiness, and she has entirely recovered.

SYPHILIS (*The Doctor*, August 1, 1875).—Mr. Henry Lee, in a recent lecture, expressed his belief that the product of primary syphilis is inoculable artificially, so as to produce the same effects as when it was naturally acquired; that the results of secondary manifestations are inoculable, so as to produce the same results; that the secretions from mucous membranes in syphilitic patients are very often the means of communicating the disease, and may sometimes be artificially inoculated.

As to treatment, Mr. Lee said that at whatever period of the disease we find the specific adhesive form of action, whether as a primary indurated sore, or an affection of the inguinal glands, or as papular, tubercular, or scaly eruptions, he held mercury to be indicated. On the other hand, when the disease, whether primary, secondary, or tertiary, has a tendency to produce suppuration, the use of this drug requires great caution; and the same may be said where the affected parts run rapidly into ulceration, although in some of these one form of mercurial treatment is wonderfully efficacious. He pronounced mercury to be injurious where mortification takes place, whether affecting minute or larger portions of the tissues.

TRISMUS NASCENTIUM (*The Richmond and Louisville Medical Journal*, July, 1875).—Dr. Philip A. Wilhite reports fourteen cases of trismus nascentium and of trismoid, which he distinguishes as the acute and the chronic forms of the disease. The first symptom of trismus is inability to suck. This is pathognomonic of the disease. The child loses the power of seizing the nipple; and if the nipple should be forced between the jaws, it has no power of suction. The child seems to

be indescribably distressed, moans, whines, cries, is colicky, sometimes has griping passages from the bowels, is restless, uneasy, sleeps badly, has borborygmus, slight spasm of one or both upper extremities, then tonic rigidity of the whole muscular system with clonic spasms, which come on at intervals, and are often excited by touch or a noise. The expression of countenance is very peculiar, and can never be forgotten when once seen. The acute form terminates fatally in two or three days, sometimes in less time; while the chronic or milder form of the disease may continue for weeks and even for months—the child slowly wasting away to a mere skeleton, and dying of what was formerly called marasmus, which is but another name for gradual starvation.

Dr. J. Marion Sims many years ago contended that this disease was not traumatic tetanus, but was caused by pressure, generally the result of an inward displacement of the occipital bone, which always existed at birth, was kept up by the dorsal decubitus, whether in the cradle or the mother's lap, and which could be removed together with the symptoms of trismus simply by adopting the lateral decubitus. Dr. Wilhite cured seven of his cases by position alone, the other seven dying without treatment. He concludes that these cases justify the conclusion that trismus nascentium is the result of mechanical causes; the predisposing causes being protracted or tedious labor, and a too well ossified state of the fœtal cranial bones. The exciting cause is undue pressure on these bones, more especially the occipital; while the immediate cause is undue compression of the medulla oblongata and the nerves originating from it. The cases given are all of one general character, and all go to show that the disease is the result of pressure exerted at the base of the brain. In all of them the pressure was produced by an inward depression of the occiput, differing, however, in degree from the slightest to the greatest possible.

Intestinal Obstruction (*Atlanta Medical and Surgical Journal*, August, 1875).—Dr. A. B. Copeland reports a case of persistent intestinal obstruction relieved by placing the patient in an inclined position, administering large distensile enemata of warm water, and finally by injecting tartaric acid and bicarbonate of sodium and following them immediately with an injection of water.

MISCELLANY.

We publish the following epistle as a literary curiosity, and as a specimen of some of the trials undergone by the disciples of Æsculapius. It was recently received by a respectable physician residing at Cape May, who had been called in by a lady to attend her daughter-in-law during an illness of a serious nature. He paid about twenty visits, and sent in a bill for fifty dollars. Although the family was moderately wealthy, he was met with a request to reduce the amount to thirty-five dollars, which he very properly refused to do, and subsequently placed the matter in the hands of a lawyer. The result was the receipt of the money and of the subjoined vituperative communication from the husband of his patient:

"August 14, 1875.

"Dr. ——:

"It is well for your mummied bones that you are securely out of my reach. . . . Were it not that I wish to spare mother's old age from worry and trouble, I would let you whistle for your money. It is an outrageous extortion, at any rate; but as you will have been paid ere this arrives, doubtless your miserly old soul will be reveling in glee, and your conscience—Heavens! has such a being a conscience? Had you decently bided your time you would have been paid next week. I got the bill only a few days since, and took steps at once to pay you in full—for I did not think the medical fraternity boasted such liberality.

"Faugh! you are hardly worth wasting a stamp upon! I once felt a show of gratitude towards you, but that is gone. No such kindly feelings can exist in the overwhelming torrent of your contemptible and insulting folly. You are wanting the essence and characteristics of a gentleman, and I, too, have been compelled to step down to your level, in order to write my opinion of you. But it is for mother's sake, and I assure you, if she have suffered, I will take it out of your miserly old bones, galvanized though they are with the metallic armor of Shylock, gold and the devil. It is a pity you were not on the Mount with Satan instead of Him whom you *pretend* to imitate. Satan would not have had to wait for *your* suppliant adoration. You are a scoundrel at heart. You have insulted my mother, my wife, and myself; and I hope the recollection of it may bring the blush of shame to your weazened, but brazen, old cheeks, till you go to your grave, and repent."

A Good Move.—A number of gentlemen in Glasgow have banded themselves together for the purpose of defacing the announcements of quack doctors, which are frequently exhibited in large numbers on the walls and hoardings of the city and suburbs. They have employed a man to go round and cover over all such bills with "lamp-black;" and it is said that in doing so he will have the protection of the police. The practice initiated in Glasgow may well be copied in all our large towns.—*The Lancet*, July 10, 1875.

NOTES AND QUERIES.

Taneytown, Md., August 18, 1875.

To the Editor of the Philadelphia Medical Times:

Dear Sir,—The name signed to the report of "A Case of Poisoning by Strychnia" in your issue of the 14th is Birnie, not Bivine.

Very respectfully yours, etc.,

C. Birnie.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM AUGUST 17, 1875, TO AUGUST 23, 1875, INCLUSIVE.

Cooper, Geo. E., Surgeon.—Leave of absence extended fifteen days. S. O. 166, A. G. O., August 18, 1875.

Sternberg, G. M., Assistant-Surgeon.—Granted leave of absence for one month, on surgeon's certificate of disability. S. O. 151, Department of the Gulf, August 14, 1875.

Williams, J. W., Assistant-Surgeon.—Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 159, Department of Dakota, August 17, 1875.